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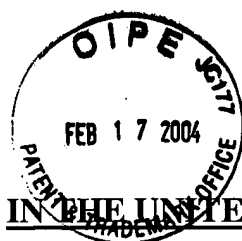
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

FREJBORG et al.

Atty. Ref.: 4228-13

Serial No. 10/660,689

TC/A.U.: 1724

Filed: September 12, 2003

Examiner: Not Yet Assigned

For: SCREEN PLATES AND METHODS OF MANUFACTURE

\* \* \* \* \*

February 17, 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**DECLARATION UNDER 37 C.F.R. §1.131**

I, Frey A. Frejborg, hereby declare and state that:

1. I am an inventor of the subject matter claimed in the patent application identified above.
2. Attached hereto as Exhibit A is a letter from me including a technical discussion regarding a new patent application dated January 23, 1990 describing an embodiment of the invention disclosed and claimed in the subject application. The attached drawings, one of which is dated January 16, 1990, were attached to the January 23, 1990 letter as part of the technical discussion.
3. The letter and drawings of Exhibit A evidence the preparation of an embodiment in accordance with the present invention at least as early as January 23, 1990.

FREJBORG et al.  
Serial No. 10/660,689

4. Along with the co-inventor, I subsequently diligently developed the invention and effected a constructive reduction to practice by filing a U.S. patent application on August 16, 1990.

5. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: Feb 11, 2004

Frey A. Frejborg  
Frey A. Frejborg

Attachment: Exhibit A



January 23, 1990

Nixon & Vanderhye P.C.  
Attorneys at Law  
2000 North 15th Street, Suite 409  
Arlington, VA 22201

ATTENTION: Robert A. Vanderhye

SUBJECT: Suggestion to new patent application and possible  
CIP of S.N. 07/259,816/Your 226-5.

Greetings Bob and a Happy New Decennary!

Per Jyrki Ansala's request I am contacting you directly on this matter. We might have discussed a new application for preliminary high wear situations already in conjunction with the application for your 226-5.

If not, this is in short what we suggest. A replaceable slotted/drilled sleeve attached to a support construction as described in S.N. 07/259,816, typically. This support construction allows machining of ID/OD facing the liner for most exacting shrink-fit and thereby full contact with the liner. Experiments have shown that the stiffness of the backing support cylinder is effectively transported through the tight shrink-fit into the liner and risk for fatigual failure is minimal.

The main feature with this design is to be able to wear down the screen plate's contour surface without having to replace the whole cylinder. The benefit is a substantial savings, varying between 50-60% of the value of a new cylinder.

From a Pulp & Paper Mill's standpoint it will mean the same as getting the hard-faced screen cylinders to last twice as long as at present.

A secondary feature with this design is that all the capacity (= effective slot length) reducing support rings can be eliminated and a 25-40% over all longer slot configuration is possible. The increase in over all slot length has almost in proportion the same effect on adding capacity to the screen cylinders.

As an example, I have enclosed three different screen cylinder drawings:

OMMI - 900 + 41% increase in total slot length.

Centriscreen M24 + 31% increase in total slot length.

Selectifier M24/PS + 25% increase in total slot length.

Ahlstrom Machinery Inc.  
P.O. Box 74  
Gunnar, NY 12001

Telephone 518 761-2500  
Telex 518-796 0374  
Tele 976478



As a further illustration, I have enclosed (2) Selectifier 24PS drawings.

The one dated January 16, 1990 shows the new way of making the cylinder and our drawing 203-2-01715 shows the old (present) way.

Every time a customer has worn-down the Profile<sup>TM</sup> to a point where the screen does not operate properly anymore, he will have to throw away the whole cylinder in the old design. The 24PS sells for approximately \$11,000.00. With the new design we can replace the worn out liner for approximately \$5,500.00 or save the mill 50% of present costs.

The procedure to remove the liner in the sketch of January 16, 1990 is as follows:

1. Machine away the outside welds at each end of the cylinder.
2. Use an abrasive disc tool for cutting out the unslotted "bands" in the axial direction and adjacent to the seam area, whereafter the sleeve is loose and can be "collapsed" inwards for removal.

Regarding the industries need for solving the costly wear problems, you could perhaps "borrow" data and other information from your reference 30-88, serial no. 07/289,101, which covers a method of improving resistance on contour types of screen cylinders.

Also for your information, Mr. Lassi Halonen has developed a further refinement of this base invention where he can still get more available open area by using a different backing plate, but with a differently machined liner plate, which has to be welded to the support cylinder. This concept cannot have the liner replaced because of substantial weldments between the backing and liner plate.

If patentable, this could be considered to become a logical CIP to the present invention.

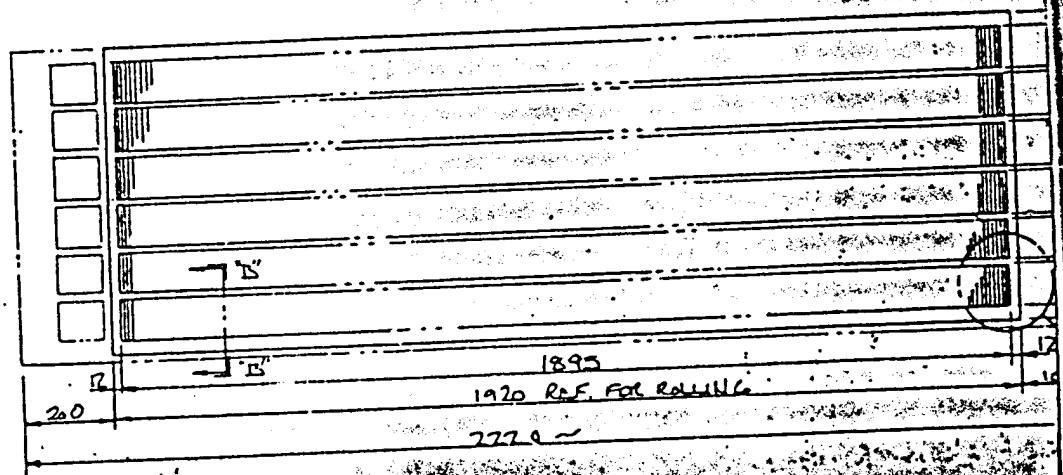
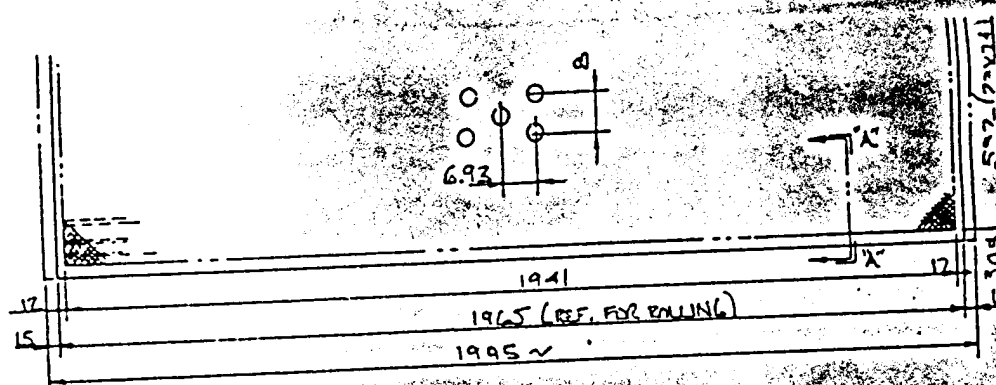
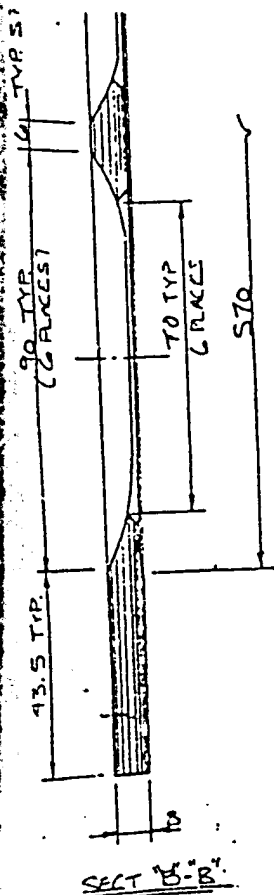
Looking forward to your comments!

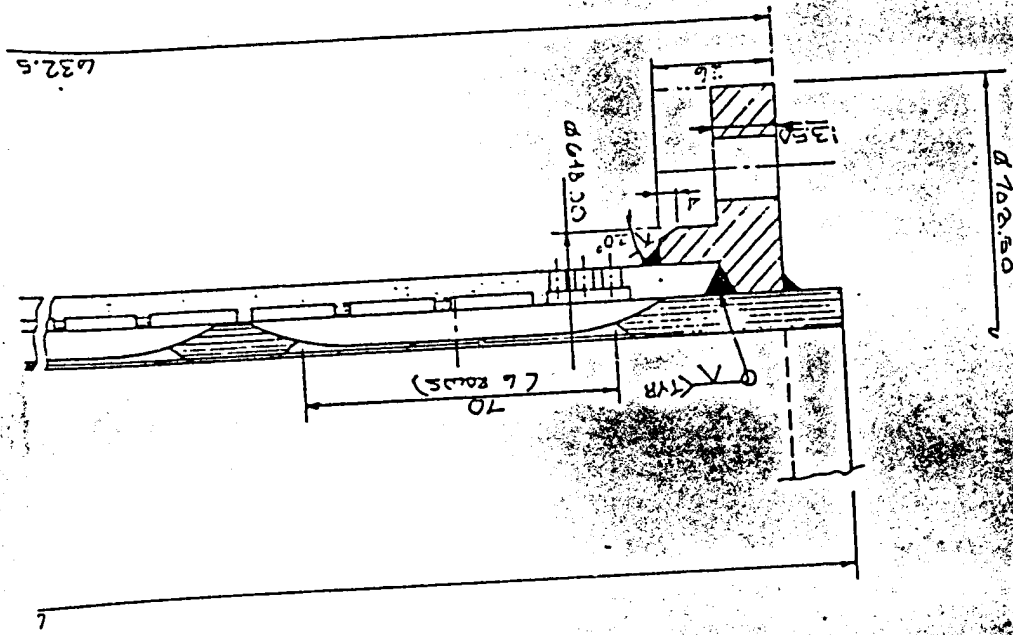
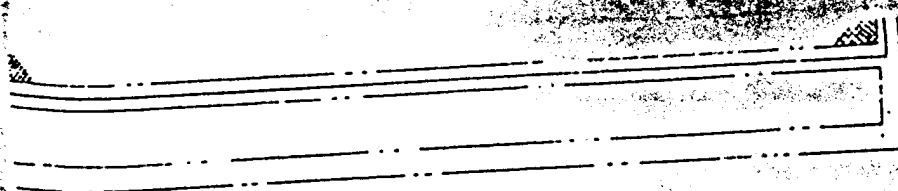
Sincerely,

AHLSTROM SCREEN PLATES INC.

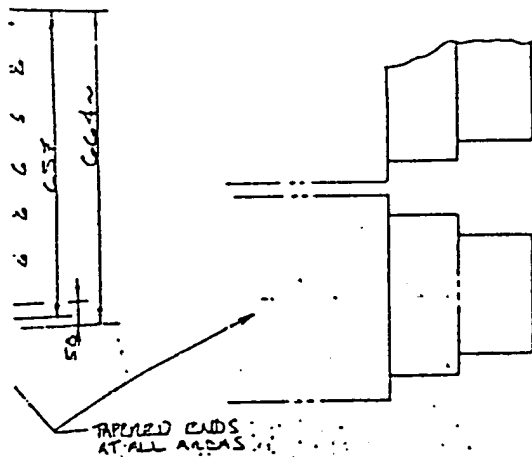
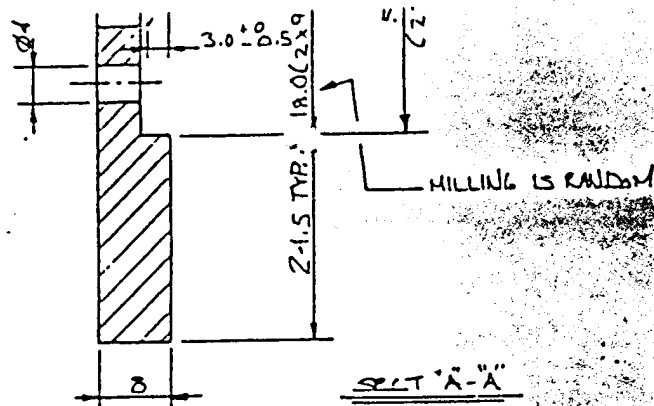
*Frey Frejborg/C.B.*  
Frey Frejborg  
Sales Manager &  
Technical Director  
Screen Plate Division  
*Lassi Halonen*  
cc: Jyrki Ansala  
Lassi Halonen  
Simo Jutila

Enclosures: Four drawings





SC



PRODUCT: SELECTIFIER 24PS RS STYLE  
 TITLE: ASSEMBLY LAY-OUT DWG  
 DWN: J. J.  
 DATE: 8/16/90



